

**567—22.1(455B) Permits required for new or existing stationary sources.**

**22.1(1) Permit required.** Unless exempted in subrule 22.1(2) or to meet the parameters established in paragraph “c” of this subrule, no person shall construct, install, reconstruct or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, or conditional permit, or permit pursuant to 22.8(455B), or permits required pursuant to 22.4(455B) and 22.5(455B) as required in this subrule. A permit shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source or anaerobic lagoon.

*a.* Existing sources. Sources built prior to September 23, 1970, are not subject to this subrule, unless they have been modified, reconstructed, or altered on or after September 23, 1970.

*b.* New or reconstructed major sources of hazardous air pollutants. No person shall construct or reconstruct a major source of hazardous air pollutants, as defined in 40 CFR 63.2 and 40 CFR 63.41 as amended through April 22, 2004, unless a construction permit has been obtained from the department, which requires maximum achievable control technology for new sources to be applied. The permit shall be obtained prior to the initiation of construction or reconstruction of the major source.

*c.* New, reconstructed, or modified sources may initiate construction prior to issuance of the construction permit by the department if they meet the eligibility requirements stated in subparagraph (1) below. The applicant must assume any liability for construction conducted on a source before the permit is issued. In no case will the applicant be allowed to hook up the equipment to the exhaust stack or operate the equipment in any way that may emit any pollutant prior to receiving a construction permit.

(1) Eligibility.

1. The applicant has submitted a construction permit application to the department, as specified in subrule 22.1(3);

2. The applicant has notified the department of the applicant’s intentions in writing five working days prior to initiating construction; and

3. The source is not subject to rule 567—22.4(455B), 567—subrule 23.1(2), 567—subrule 23.1(3), 567—subrule 23.1(4), 567—subrule 23.1(5), or paragraph “b” of this subrule. Prevention of significant deterioration (PSD) provisions and prohibitions remain applicable until a proposed project legally obtains PSD synthetic minor status (i.e., obtains permitted limits which limit the source below the PSD thresholds).

(2) The applicant must cease construction if the department’s evaluation demonstrates that the construction, reconstruction or modification of the source will interfere with the attainment or maintenance of the national ambient air quality standards or will result in a violation of a control strategy required by 40 CFR Part 51, Subpart G, as amended through August 12, 1996.

(3) The applicant will be required to make any modification to the source that may be imposed in the issued construction permit.

(4) The applicant must notify the department of the date that construction or reconstruction actually started. All notifications shall be submitted to the department in writing no later than 30 days after construction or reconstruction started. All notifications shall include all of the information listed in 22.3(3) “b.”

*d.* Permit requirements for country grain elevators, country grain terminal elevators, grain terminal elevators, and feed mill equipment. The owner or operator of a country grain elevator, country grain terminal elevator, grain terminal elevator or feed mill equipment, as “country grain elevator,” “country grain terminal elevator,” “grain terminal elevator,” and “feed mill equipment” are defined in subrule 22.10(1), may elect to comply with the requirements specified in rule 567—22.10(455B) for equipment at these facilities.

**22.1(2) Exemptions.** The requirement to obtain a permit in 567—subrule 22.1(1) is not required for the equipment, control equipment, and processes listed in this subrule. The permitting exemptions in this subrule do not relieve the owner or operator of any source from any obligation to comply with any other applicable requirements. Equipment, control equipment, or processes subject to rule 22.4(455B), prevention of significant deterioration requirements, or rule 22.5(455B), special requirements for nonattainment areas, may not use the exemptions from construction permitting listed in this subrule. Equipment, control equipment, or processes subject to 567—subrule 23.1(2), new source performance

standards (40 CFR Part 60 NSPS); 567—subrule 23.1(3), emission standards for hazardous air pollutants (40 CFR Part 61 NESHAP); 567—subrule 23.1(4), emission standards for hazardous air pollutants for source categories (40 CFR Part 63 NESHAP); or 567—subrule 23.1(5), emission guidelines, may still use the exemptions from construction permitting listed in this subrule provided that a permit is not needed to create federally enforceable limits that restrict potential to emit. If equipment is permitted under the provisions of rule 22.8(455B), then no other exemptions shall apply to that equipment.

Records shall be kept at the facility for exemptions that have been claimed under the following paragraphs: 22.1(2)“a” (for equipment > 1 million Btu per hour input), 22.1(2)“b,”22.1(2)“e,” 22.1(2)“r” or 22.1(2)“s.” The records shall contain the following information: the specific exemption claimed and a description of the associated equipment. These records shall be made available to the department upon request.

The following paragraphs are applicable to 22.1(2)“g” and “i.” A facility claiming to be exempt under the provisions of paragraph “g” or “i” shall provide to the department the information listed below. If the exemption is claimed for a source not yet constructed or modified, the information shall be provided to the department at least 30 days in advance of the beginning of construction on the project. If the exemption is claimed for a source that has already been constructed or modified and that does not have a construction permit for that construction or modification, the information listed below shall be provided to the department within 60 days of March 20, 1996. After that date, if the exemption is claimed by a source that has already been constructed or modified and that does not have a construction permit for that construction or modification, the source shall not operate until the information listed below is provided to the department:

- A detailed emissions estimate of the actual and potential emissions, specifically noting increases or decreases, for the project for all regulated pollutants (as defined in rule 22.100(455B)), accompanied by documentation of the basis for the emissions estimate;
  - A detailed description of each change being made;
  - The name and location of the facility;
  - The height of the emission point or stack and the height of the highest building within 50 feet;
  - The date for beginning actual construction and the date that operation will begin after the changes are made;
- A statement that the provisions of rules 22.4(455B) and 22.5(455B) do not apply; and
- A statement that the accumulated emissions increases associated with each change under paragraph 22.1(2)“i,” when totaled with other net emissions increases at the facility contemporaneous with the proposed change (occurring within five years before construction on the particular change commences), have not exceeded significant levels, as defined in 40 CFR 52.21(b)(23) as amended through March 12, 1996, and adopted in rule 22.4(455B), and will not prevent the attainment or maintenance of the ambient air quality standards specified in 567—Chapter 28. This statement shall be accompanied by documentation for the basis of these statements.

The written statement shall contain certification by a responsible official as defined in rule 22.100(455B) of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

*a.* Fuel-burning equipment for indirect heating and reheating furnaces or cooling units using natural gas or liquefied petroleum gas with a capacity of less than ten million Btu per hour input per combustion unit.

*b.* Fuel-burning equipment for indirect heating or cooling with a capacity of less than 1 million Btu per hour input per combustion unit when burning coal, untreated wood, untreated seeds or pellets, other untreated vegetative materials, or fuel oil. Used oils meeting the specification from 40 CFR 279.11 as amended through May 3, 1993, are acceptable fuels for this exemption.

*c.* Mobile internal combustion and jet engines, marine vessels and locomotives.

*d.* Equipment used for cultivating land, harvesting crops, or raising livestock other than anaerobic lagoons. This exemption is not applicable if the equipment is used to remove substances from grain which were applied to the grain by another person. This exemption is also not applicable to equipment

used by a person to manufacture commercial feed, as defined in Iowa Code section 198.3, which is normally not fed to livestock, owned by the person or another person, in a feedlot, as defined in Iowa Code section 172D.1, subsection 6, or a confinement building owned or operated by that person and located in this state.

*e.* Incinerators and pyrolysis cleaning furnaces with a rated refuse burning capacity of less than 25 pounds per hour. Pyrolysis cleaning furnace exemption is limited to those units that use only natural gas or propane. Salt bath units are not included in this exemption.

*f.* Fugitive dust controls unless a control efficiency can be assigned to the equipment or control equipment.

*g.* Equipment or control equipment which reduces or eliminates all emission to the atmosphere. If a source wishes to obtain credit for emission reductions, a permit must be obtained for the reduction prior to the time the reduction is made. If a construction permit has been previously issued for the equipment or control equipment, all other conditions of the construction permit remain in effect.

*h.* Equipment (other than anaerobic lagoons) or control equipment which emits odors unless such equipment or control equipment also emits particulate matter, or any other regulated air contaminant (as defined in rule 22.100(455B)).

*i.* Construction, modification or alteration to equipment which will not result in a net emissions increase (as defined in paragraph 22.5(1)“*f*”) of more than 1.0 lb/hr of any regulated air pollutant (as defined in rule 22.100(455B)). Emission reduction achieved through the installation of control equipment, for which a construction permit has not been obtained, does not establish a limit to potential emissions.

Hazardous air pollutants (as defined in rule 22.100(455B)) are not included in this exemption except for those listed in Table 1. Further, the net emissions rate INCREASE must not equal or exceed the values listed in Table 1.

Table 1

<u>Pollutant</u>	<u>Ton/year</u>
Lead	0.6
Asbestos	0.007
Beryllium	0.0004
Vinyl Chloride	1
Fluorides	3

This exemption is ONLY applicable to vertical discharges with the exhaust stack height 10 or more feet above the highest building within 50 feet. If a construction permit has been previously issued for the equipment or control equipment, the conditions of the construction permit remain in effect. In order to use this exemption, the facility must comply with the information submission to the department as described above.

The department reserves the right to require proof that the expected emissions from the source which is being exempted from the air quality construction permit requirement, in conjunction with all other emissions, will not prevent the attainment or maintenance of the ambient air quality standards specified in 567—Chapter 28. If the department finds, at any time after a change has been made pursuant to this exemption, evidence of violations of any of the department’s rules, the department may require the source to submit to the department sufficient information to determine whether enforcement action should be taken. This information may include, but is not limited to, any information that would have been submitted in an application for a construction permit for any changes made by the source under this exemption, and air quality dispersion modeling.

*j.* Residential heaters, cookstoves, or fireplaces, which burn untreated wood, untreated seeds or pellets, or other untreated vegetative materials.

*k.* Asbestos demolition and renovation projects subject to 40 CFR 61.145 as amended through January 16, 1991.

*l.* The equipment in laboratories used exclusively for nonproduction chemical and physical analyses. Nonproduction analyses means analyses incidental to the production of a good or service and includes analyses conducted for quality assurance or quality control activities, or for the assessment of environmental impact.

*m.* Storage tanks with a capacity of less than 19,812 gallons and an annual throughput of less than 200,000 gallons.

*n.* Stack or vents to prevent escape of sewer gases through plumbing traps. Systems which include any industrial waste are not exempt.

*o.* A nonproduction surface coating process that uses only hand-held aerosol spray cans.

*p.* Brazing, soldering or welding equipment or portable cutting torches used only for nonproduction activities.

*q.* Cooling and ventilating equipment: Comfort air conditioning not designed or used to remove air contaminants generated by, or released from, specific units of equipment.

*r.* An internal combustion engine with a brake horsepower rating of less than 400 measured at the shaft. For the purposes of this exemption, the manufacturer's nameplate rating at full load shall be defined as the brake horsepower output at the shaft. An internal combustion engine may be subject to the new source performance standards (NSPS) for stationary compression ignition internal combustion engines set forth in 40 CFR Part 60, Subpart IIII, as adopted by reference in 567—paragraph 23.1(2)“yyy.” Use of this exemption does not relieve an owner or operator from any obligation to comply with the NSPS requirements.

*s.* Equipment that is not related to the production of goods or services and used exclusively for academic purposes, located at educational institutions (as defined in Iowa Code section 455B.161). The equipment covered under this exemption is limited to: lab hoods, art class equipment, wood shop equipment in classrooms, wood fired pottery kilns, and fuel-burning units with a capacity of less than one million Btu per hour fuel capacity. This exemption does not apply to incinerators.

*t.* Any container, storage tank, or vessel that contains a fluid having a maximum true vapor pressure of less than 0.75 psia. “Maximum true vapor pressure” means the equilibrium partial pressure of the material considering:

- For material stored at ambient temperature, the maximum monthly average temperature as reported by the National Weather Service, or

- For material stored above or below the ambient temperature, the temperature equal to the highest calendar-month average of the material storage temperature.

*u.* Equipment for carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, sandblast cleaning, shot blasting, shot peening, or polishing ceramic artwork, leather, metals (other than beryllium), plastics, concrete, rubber, paper stock, and wood or wood products, where such equipment is either used for nonproduction activities or exhausted inside a building.

*v.* Manually operated equipment, as defined in 567—22.100(455B), used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, scarfing, surface grinding, or turning.

*w.* Small unit exemption.

(1) “Small unit” means any emission unit and associated control (if applicable) that emits less than the following:

1. 40 pounds per year of lead and lead compounds expressed as lead;
2. 5 tons per year of sulfur dioxide;
3. 5 tons per year of nitrogen oxides;
4. 5 tons per year of volatile organic compounds;
5. 5 tons per year of carbon monoxide;
6. 5 tons per year of particulate matter (particulate matter as defined in 40 CFR Part 51.100(pp));
7. 2.5 tons per year of PM10; or
8. 5 tons per year of hazardous air pollutants (as defined in rule 22.100(455B)).

For the purposes of this exemption, “emission unit” means any part or activity of a stationary source that emits or has the potential to emit any pollutant subject to regulation under the Act. This exemption applies to existing and new or modified “small units.”

An emission unit that emits hazardous air pollutants (as defined in rule 22.100(455B)) is not eligible for this exemption if the emission unit is required to be reviewed for compliance with 567—subrule 23.1(3), emission standards for hazardous air pollutants (40 CFR 61, NESHAP), or 567—subrule 23.1(4), emission standards for hazardous air pollutants for source categories (40 CFR 63, NESHAP).

An emission unit that emits air pollutants that are not regulated air pollutants as defined in rule 22.100(455B) shall not be eligible to use this exemption.

(2) Permit requested. If requested in writing by the owner or operator of a small unit, the director may issue a construction permit for the emission point associated with that emission unit.

(3) An owner or operator that utilizes the small unit exemption must maintain on site an “exemption justification document.” The exemption justification document must document conformance and compliance with the emission rate limits contained in the definition of “small unit” for the particular emission unit or group of similar emission units obtaining the exemption. Controls which may be part of the exemption justification document include, but are not limited to, the following: emission control devices, such as cyclones, filters, or baghouses; restricted hours of operation or fuel; and raw material or solvent substitution. The exemption justification document for an emission unit or group of similar emission units must be made available for review during normal business hours and for state or EPA on-site inspections, and shall be provided to the director or the director’s representative upon request. If an exemption justification document does not exist, the applicability of the small unit exemption is voided for that particular emission unit or group of similar emission units. The controls described in the exemption justification document establish a limit on the potential emissions. An exemption justification document shall include the following for each applicable emission unit or group of similar emission units:

1. A narrative description of how the emissions from the emission unit or group of similar emission units were determined and maintained at or below the annual small unit exemption levels.

2. If air pollution control equipment is used, a description of the air pollution control equipment used on the emission unit or group of similar emission units and a statement that the emission unit or group of similar emission units will not be operated without the pollution control equipment operating.

3. If air pollution control equipment is used, applicant shall maintain a copy of any report of manufacturer’s testing results of any emissions test, if available. The department may require a test if it believes that a test is necessary for the exemption claim.

4. A description of all production limits required for the emission unit or group of similar emission units to comply with the exemption levels.

5. Detailed calculations of emissions reflecting the use of any air pollution control devices or production or throughput limitations, or both, for applicable emission unit or group of similar emission units.

6. Records of actual operation that demonstrate that the annual emissions from the emission unit or group of similar emission units were maintained below the exemption levels.

7. Facilities designated as major sources with respect to rules 22.4(455B) and 22.101(455B), or subject to any applicable federal requirements, shall retain all records demonstrating compliance with the exemption justification document for five years. The record retention requirements supersede any retention conditions of an individual exemption.

8. A certification from the responsible official that the emission unit or group of similar emission units have complied with the exemption levels specified in 22.1(2) “w”(1).

(4) Requirement to apply for a construction permit. An owner or operator of a small unit will be required to obtain a construction permit or take the unit out of service if the emission unit exceeds the small unit emission levels.

1. If, during an inspection or other investigation of a facility, the department believes that the emission unit exceeds the emission levels that define a “small unit,” then the department will submit calculations and detailed information in a letter to the owner or operator. The owner or operator shall have 60 days to respond with detailed calculations and information to substantiate a claim that the small unit does not exceed the emission levels that define a small unit.

2. If the owner or operator is unable to substantiate a claim to the satisfaction of the department, then the owner or operator that has been using the small unit exemption must cease operation of that small unit or apply for a construction permit for that unit within 90 days after receiving a letter of notice from the department. The emission unit and control equipment may continue operation during this period and the associated initial application review period.

3. If the notification of nonqualification as a small unit is made by the department following the process described above, the owner or operator will be deemed to have constructed an emission unit without the required permit and may be subject to applicable penalties.

(5) Required notice for construction or modification of a “substantial small unit.” The owner or operator shall notify the department in writing at least 10 days prior to commencing construction of any new or modified “substantial small unit” as defined in 22.1(2) “w”(6). The owner or operator shall notify the department within 30 days after determining an existing small unit meets the criteria of the “substantial small unit” as defined in 22.1(2) “w”(6). Notification shall include the name of the business, the location where the unit will be installed, and information describing the unit and quantifying its emissions. The owner or operator shall notify the department within 90 days of the end of the calendar year for which the aggregate emissions from substantial small units at the facility have reached any of the cumulative notice thresholds listed below.

(6) For the purposes of this paragraph, “substantial small unit” means a small unit which emits more than the following amounts, as documented in the exemption justification document:

1. 30 pounds per year of lead and lead compounds expressed as lead;
2. 3.75 tons per year of sulfur dioxide;
3. 3.75 tons per year of nitrogen oxides;
4. 3.75 tons per year of volatile organic compounds;
5. 3.75 tons per year of carbon monoxide;
6. 3.75 tons per year of particulate matter (particulate matter as defined in 40 CFR Part 51.100(pp));
7. 1.875 tons per year of PM10; or
8. 3.75 tons per year of any hazardous air pollutant or 3.75 tons per year of any combination of hazardous air pollutants.

An emission unit is a “substantial small unit” only for those substances for which annual emissions exceed the above-indicated amounts.

(7) Required notice that a cumulative notice threshold has been reached. Once a “cumulative notice threshold,” as defined in 22.1(2) “w”(8), has been reached for any of the listed pollutants, the owner or operator at the facility must apply for air construction permits for all substantial small units for which the cumulative notice threshold for the pollutant(s) in question has been reached. The owner or operator shall have 90 days from the date it determines that the cumulative notice threshold has been reached in which to apply for construction permit(s). The owner or operator shall submit a letter to the department, within 5 working days of making this determination, establishing the date the owner or operator determined that the cumulative notice threshold had been reached.

(8) “Cumulative notice threshold” means the total combined emissions from all substantial small units using the small unit exemption which emit at the facility the following amounts, as documented in the exemption justification document:

1. 0.6 tons per year of lead and lead compounds expressed as lead;
  2. 40 tons per year of sulfur dioxide;
  3. 40 tons per year of nitrogen oxides;
  4. 40 tons per year of volatile organic compounds;
  5. 100 tons per year of carbon monoxide;
  6. 25 tons per year of particulate matter (particulate matter as defined in 40 CFR Part 51.100(pp));
  7. 15 tons per year of PM10; or
  8. 10 tons per year of any hazardous air pollutant or 25 tons per year of any combination of hazardous air pollutants.
- x. The following equipment, processes, and activities:

- (1) Cafeterias, kitchens, and other facilities used for preparing food or beverages primarily for consumption at the source.
- (2) Consumer use of office equipment and products, not including printers or businesses primarily involved in photographic reproduction.
- (3) Janitorial services and consumer use of janitorial products.
- (4) Internal combustion engines used for lawn care, landscaping, and groundskeeping purposes.
- (5) Laundry activities located at a stationary source that uses washers and dryers to clean, with water solutions of bleach or detergents, or to dry clothing, bedding, and other fabric items used on site. This exemption does not include laundry activities that use dry cleaning equipment or steam boilers.
- (6) Bathroom vent emissions, including toilet vent emissions.
- (7) Blacksmith forges.
- (8) Plant maintenance and upkeep activities and repair or maintenance shop activities (e.g., groundskeeping, general repairs, cleaning, painting, welding, plumbing, retarring roofs, installing insulation, and paving parking lots), provided that these activities are not conducted as part of manufacturing process, are not related to the source's primary business activity, and do not otherwise trigger a permit modification. Cleaning and painting activities qualify if they are not subject to control requirements for volatile organic compounds or hazardous air pollutants as defined in 22.100(455B).
- (9) Air compressors and vacuum, pumps, including hand tools.
- (10) Batteries and battery charging stations, except at battery manufacturing plants.
- (11) Equipment used to store, mix, pump, handle or package soaps, detergents, surfactants, waxes, glycerin, vegetable oils, greases, animal fats, sweetener, corn syrup, and aqueous salt or caustic solutions, provided that appropriate lids and covers are utilized and that no organic solvent has been mixed with such materials.
- (12) Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
- (13) Vents from continuous emissions monitors and other analyzers.
- (14) Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
- (15) Equipment used by surface coating operations that apply the coating by brush, roller, or dipping, except equipment that emits volatile organic compounds or hazardous air pollutants as defined in 22.100(455B).
- (16) Hydraulic and hydrostatic testing equipment.
- (17) Environmental chambers not using gases which are hazardous air pollutants as defined in 22.100(455B).
- (18) Shock chambers, humidity chambers, and solar simulators.
- (19) Fugitive dust emissions related to movement of passenger vehicles on unpaved road surfaces, provided that the emissions are not counted for applicability purposes and that any fugitive dust control plan or its equivalent is submitted as required by the department.
- (20) Process water filtration systems and demineralizers, demineralized water tanks, and demineralizer vents.
- (21) Boiler water treatment operations, not including cooling towers or lime silos.
- (22) Oxygen scavenging (deaeration) of water.
- (23) Fire suppression systems.
- (24) Emergency road flares.
- (25) Steam vents, safety relief valves, and steam leaks.
- (26) Steam sterilizers.
- (27) Application of hot melt adhesives from closed-pot systems using polyolefin compounds, polyamides, acrylics, ethylene vinyl acetate and urethane material when stored and applied at the manufacturer's recommended temperatures. Equipment used to apply hot melt adhesives shall have a safety device that automatically shuts down the equipment if the hot melt temperature exceeds the manufacturer's recommended application temperature.

y. Direct-fired equipment burning natural gas, propane, or liquefied propane with a capacity of less than 10 million Btu per hour input, and direct-fired equipment burning fuel oil with a capacity of less than 1 million Btu per hour input, with emissions that are attributable only to the products of combustion. Emissions other than those attributable to the products of combustion shall be accounted for in an enforceable permit condition or shall otherwise be exempt under this subrule.

z. Closed refrigeration systems, including storage tanks used in refrigeration systems, but excluding any combustion equipment associated with such systems.

aa. Pretreatment application processes that use aqueous-based chemistries designed to clean a substrate, provided that the chemical concentrate contains no more than 5 percent organic solvents by weight. This exemption includes pretreatment processes that use aqueous-based cleaners, cleaner-phosphatizers, and phosphate conversion coating chemistries.

bb. Indoor-vented powder coating operations with filters or powder recovery systems.

cc. Electric curing ovens or curing ovens that run on natural gas or propane with a maximum heat input of less than 10 million Btu per hour and that are used for powder coating operations, provided that the total cured powder usage is less than 75 tons of powder per year at the stationary source. Records shall be maintained on site by the owner or operator for a period of at least two calendar years to demonstrate that cured powder usage is less than the exemption threshold.

dd. Each production painting, adhesive or coating unit using an application method other than a spray system and associated cleaning operations that use 1,000 gallons or less of coating and solvents annually, unless the production painting, adhesive or coating unit and associated cleaning operations are subject to work practice, process limits, emissions limits, stack testing, record-keeping or reporting requirements under 567—subrule 23.1(2), 567—subrule 23.1(3), or 567—subrule 23.1(4). Records shall be maintained on site by the owner or operator for a period of at least two calendar years to demonstrate that paint, adhesive, or solvent usage is at or below the exemption threshold.

ee. Any production surface coating activity that uses only nonrefillable hand-held aerosol cans, where the total volatile organic compound emissions from all these activities at a stationary source do not exceed 5.0 tons per year.

ff. Production welding.

(1) Welding using a consumable electrode, provided that the consumable electrodes used fall within American Welding Society specification A5.18/A5.18M for Gas Metal Arc Welding (GMAW), A5.1 or A5.5 for Shielded Metal Arc Welding (SMAW), and A5.20 for Flux Core Arc Welding (FCAW), and provided that the quantity of all electrodes used at the stationary source of the acceptable specifications is below 200,000 pounds per year for GMAW and 28,000 pounds per year for SMAW or FCAW. Records that identify the type and annual amount of welding electrode used shall be maintained on site by the owner or operator for a period of at least two calendar years.

For stationary sources where electrode usage exceeds these levels, the welding activity at the stationary source may be exempted if the amount of electrode used (Y) is less than:

Y = the greater of  $1380x - 19,200$  or 200,000 for GMAW, or

Y = the greater of  $187x - 2,600$  or 28,000 for SMAW or FCAW

Where x is the minimum distance to the property line in feet, and Y is the annual electrode usage in pounds per year.

If the stationary source has welding processes that fit into both of the specified exemptions, the most stringent limits must be applied.

(2) Resistance welding, submerged arc welding, or arc welding that does not use a consumable electrode, provided that the base metals do not include stainless steel, alloys of lead, alloys of arsenic, or alloys of beryllium and provided that the base metals are uncoated, excluding manufacturing process lubricants.

gg. Electric hand soldering, wave soldering, and electric solder paste reflow ovens.

hh. Pressurized piping and storage systems for natural gas, propane, liquefied petroleum gas (LPG), and refrigerants, where emissions could only result from an upset condition.

*ii.* Emissions from the storage and mixing of paints and solvents associated with the painting operations, provided that the emissions from the storage and mixing are accounted for in an enforceable permit condition or are otherwise exempt.

*jj.* Product labeling using laser and ink-jet printers with target distances less than or equal to six inches and an annual material throughput of less than 1,000 gallons per year as calculated on a stationary sourcewide basis.

*kk.* Equipment related to research and development activities at a stationary source, provided that:

(1) Actual emissions from all research and development activities at the stationary source based on a 12-month rolling total are less than the following levels:

40 pounds per year of lead and lead compounds expressed as lead;

5 tons per year of sulfur dioxide;

5 tons per year of nitrogen dioxides;

5 tons per year of volatile organic compounds;

5 tons per year of carbon monoxide;

5 tons per year of particulate matter (particulate matter as defined in 40 CFR Part 51.100(pp) as amended through November 29, 2004);

2.5 tons per year of PM10; and

5 tons per year of hazardous pollutants (as defined in rule 22.100(455B)); and

(2) The owner or operator maintains records of actual operations demonstrating that the annual emissions from all research and development activities conducted under this exemption are below the levels listed in subparagraph (1) above. These records shall:

1. Include a list of equipment that is included under the exemption;

2. Include records of actual operation and detailed calculations of actual annual emissions, reflecting the use of any control equipment and demonstrating that the emissions are below the levels specified in the exemption;

3. Include, if air pollution equipment is used in the calculation of emissions, a copy of any report of manufacturer's testing, if available. The department may require a test if it believes that a test is necessary for the exemption claim; and

4. Be maintained on site for a minimum of two years, be made available for review during normal business hours and for state and EPA on-site inspections, and be provided to the director or the director's designee upon request. Facilities designated as major sources pursuant to rules 22.4(455B) and 22.101(455B), or subject to any applicable federal requirements, shall retain all records demonstrating compliance with this exemption for five years.

(3) An owner or operator using this exemption obtains a construction permit or ceases operation of equipment if operation of the equipment would cause the emission levels listed in this exemption to be exceeded.

For the purposes of this exemption, "research and development activities" shall be defined as activities:

1. That are operated under the close supervision of technically trained personnel; and

2. That are conducted for the primary purpose of theoretical research or research and development into new or improved processes and products; and

3. That do not manufacture more than de minimis amounts of commercial products; and

4. That do not contribute to the manufacture of commercial products by collocated sources in more than a de minimis manner.

*ll.* A regional collection center (RCC), as defined in 567—Chapter 211, involved in the processing of permitted hazardous materials from households and conditionally exempt small quantity generators (CESQG), not to exceed 1,200,000 pounds of VOC containing material in a 12-month rolling period. Latex paint drying may not exceed 120,000 pounds per year on a 12-month rolling total. Other nonprocessing emission units (e.g., standby generators and waste oil heaters) shall not be eligible to use this exemption.

*mm.* Cold solvent cleaning machines that are not in-line cleaning machines, where the maximum vapor pressure of the solvents used shall not exceed 0.7 kPa (5 mmHg or 0.1 psi) at 20°C (68°F). The

machine must be equipped with a tightly fitted cover or lid that shall be closed at all times except during parts entry and removal. This exemption cannot be used for cold solvent cleaning machines that use solvent containing methylene chloride (CAS # 75-09-2), perchloroethylene (CAS # 127-18-4), trichloroethylene (CAS # 79-01-6), 1,1,1-trichloroethane (CAS # 71-55-6), carbon tetrachloride (CAS # 56-23-5) or chloroform (CAS # 67-66-3), or any combination of these halogenated HAP solvents in a total concentration greater than 5 percent by weight.

*nm.* Emissions from mobile over-the-road trucks, and mobile agricultural and construction internal combustion engines that are operated only for repair or maintenance purposes at equipment repair shops or equipment dealerships, and only when the repair shops or equipment dealerships are not major sources as defined in rule 567—22.100(455B).

**22.1(3) Construction permits.** The owner or operator of a new or modified stationary source shall apply for a construction permit unless a conditional permit is required by Iowa Code chapter 455B or subrule 22.1(4) or requested by the applicant in lieu of a construction permit. Two copies of a construction permit application for a new or modified stationary source shall be presented or mailed to Department of Natural Resources, Air Quality Bureau, 7900 Hickman Road, Suite 1, Urbandale, Iowa 50322. Alternatively, the owner or operator may apply for a construction permit for a new or modified stationary source through the electronic submittal format specified by the department. The owner or operator of any new or modified industrial anaerobic lagoon or a new or modified anaerobic lagoon for an animal feeding operation other than a small operation as defined in rule 567—65.1(455B) shall apply for a construction permit. Two copies of a construction permit application for an anaerobic lagoon shall be presented or mailed to Department of Natural Resources, Water Quality Bureau, Henry A. Wallace Building, 502 East Ninth Street, Des Moines, Iowa 50319.

*a. New equipment design in concept review.* If requested in writing, the director will review the design concepts of proposed new equipment and associated control equipment prior to application for a construction permit. The purpose of the review would be to determine the acceptability of the location of the proposed equipment. If the review is requested, the requester shall supply the following information:

- (1) Preliminary plans and specifications of proposed equipment and related control equipment.
- (2) The exact site location and a plot plan of the immediate area, including the distance to and height of nearby buildings and the estimated location and elevation of the emission points.
- (3) The estimated emission rates of any air contaminants which are to be considered.
- (4) The estimated exhaust gas temperature, velocity at the point of discharge, and stack diameter at the point of discharge.
- (5) An estimate of when construction would begin and when construction would be completed.

*b. Construction permit applications.* Each application for a construction permit shall be submitted to the department on the form “Air Construction Permit Application.” Final plans and specifications for the proposed equipment or related control equipment shall be submitted with the application for a permit and shall be prepared by or under the direct supervision of a professional engineer licensed in the state of Iowa in conformance with Iowa Code section 542B.1, or consistent with the provisions of Iowa Code section 542B.26 for any full-time employee of any corporation while doing work for that corporation. The application for a permit to construct shall include the following information:

- (1) A description of the equipment or control equipment covered by the application;
- (2) A scaled plot plan, including the distance and height of nearby buildings, and the location and elevation of existing and proposed emission points;
- (3) The composition of the effluent stream, both before and after any control equipment with estimates of emission rates, concentration, volume and temperature;
- (4) The physical and chemical characteristics of the air contaminants;
- (5) The proposed dates and description of any tests to be made by the owner or operator of the completed installation to verify compliance with applicable emission limits or standards of performance;
- (6) Information pertaining to sampling port locations, scaffolding, power sources for operation of appropriate sampling instruments, and pertinent allied facilities for making tests to ascertain compliance;
- (7) Any additional information deemed necessary by the department to determine compliance with or applicability of rules 22.4(455B) and 22.5(455B); and

(8) Application for a case-by-case MACT determination. If the source meets the definition of construction or reconstruction of a major source of hazardous air pollutants, as defined in paragraph 22.1(1)“b,” then the owner or operator shall submit an application for a case-by-case MACT determination, as required in subparagraph 23.1(4)“b”(1), with the construction permit application. In addition to this paragraph, an application for a case-by-case MACT determination shall include the following information:

1. The hazardous air pollutants (HAP) emitted by the constructed or reconstructed major source, and the estimated emission rate for each HAP, to the extent this information is needed by the permitting authority to determine MACT;

2. Any federally enforceable emission limitations applicable to the constructed or reconstructed major source;

3. The maximum and expected utilization of capacity of the constructed or reconstructed major source, and the associated uncontrolled emission rates for that source, to the extent this information is needed by the permitting authority to determine MACT;

4. The controlled emissions for the constructed or reconstructed major source in tons/yr at expected and maximum utilization of capacity to the extent this information is needed by the permitting authority to determine MACT;

5. A recommended emission limitation for the constructed or reconstructed major source consistent with the principles set forth in 40 CFR Part 63.43(d) as amended through December 27, 1996;

6. The selected control technology to meet the recommended MACT emission limitation, including technical information on the design, operation, size, estimated control efficiency of the control technology (and the manufacturer’s name, address, telephone number, and relevant specifications and drawings, if requested by the permitting authority);

7. Supporting documentation including identification of alternative control technologies considered by the applicant to meet the emission limitation, and analysis of cost and non-air quality health environmental impacts or energy requirements for the selected control technology;

8. An identification of any listed source category or categories in which the major source is included.

(9) A signed statement that ensures the applicant’s legal entitlement to install and operate equipment covered by the permit application on the property identified in the permit application. A signed statement shall not be required for rock crushers, portable concrete or asphalt equipment used in conjunction with specific identified construction projects which are intended to be located at a site only for the duration of the specific, identified construction project.

*c. Application requirements for anaerobic lagoons.* The application for a permit to construct an anaerobic lagoon shall include the following information:

(1) The source of the water being discharged to the lagoon;

(2) A plot plan, including distances to nearby residences or occupied buildings, local land use zoning maps of the vicinity, and a general description of the topography in the vicinity of the lagoon;

(3) In the case of an animal feeding operation, the information required in rule 567—65.15(455B);

(4) In the case of an industrial source, a chemical description of the waste being discharged to the lagoon;

(5) A report of sulfate analyses conducted on the water to be used for any purpose in a livestock operation proposing to use an anaerobic lagoon. The report shall be prepared by using standard methods as defined in 567—60.2(455B);

(6) A description of available water supplies to prove that adequate water is available for dilution;

(7) In the case of an animal feeding operation, a waste management plan describing the method of waste collection and disposal and the land to be used for disposal. Evidence that the waste disposal equipment is of sufficient size to dispose of the wastes within a 20-day period per year shall also be provided;

(8) Any additional information needed by the department to determine compliance with these rules.

**22.1(4) Conditional permits.** The owner or operator of any new or modified major stationary source may elect to apply for a conditional permit in lieu of a construction permit. Electric power generating facilities with a total capacity of 100 megawatts or more are required to apply for a conditional permit.

*a. Applicability determination.* If requested in writing, the director will make a preliminary determination of nonattainment applicability pursuant to rules 22.4(455B) and 22.5(455B), based upon the information supplied by the requester.

*b. Conditional permit applications.* Each application for a conditional permit shall be submitted to the department in writing and shall consist of the following items:

(1) The results of an air quality impact analysis which characterizes preconstruction air quality and the air quality impacts of facility construction and operation. A quality assurance plan for the preconstruction air monitoring where required in accordance with 40 Code of Federal Regulations Part 58 as amended through July 18, 1997, shall also be submitted.

(2) A description of equipment and pollution control equipment design parameters.

(3) Preliminary plans and specifications showing major equipment items and location.

(4) The fuel specifications of any anticipated energy source, and assurances that any proposed energy source will be utilized.

(5) Certification that the preliminary plans and specifications for the equipment and related control equipment have been prepared by or under the direct supervision of a professional engineer registered in the state of Iowa in conformance with Iowa Code chapter 542B.

(6) An estimate of when construction would begin and when construction would be completed.

(7) Any additional information deemed necessary by the department to determine compliance with or applicability of rules 22.4(455B) and 22.5(455B).

This rule is intended to implement Iowa Code section 455B.133.